

Notice of Allowability

Application No.

10/651,526

Examiner

Rodney G. McDonald

Applicant(s)

SHIRAKAWABE ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 3-14-05.
2. ☒ The allowed claim(s) is/are 20-25 and 54-76.
3. ☒ The drawings filed on 29 August 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☒ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

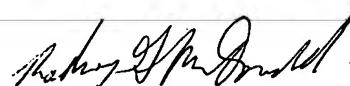
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



RODNEY G. MCDONALD
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Bruce Adams on May 24, 2005.

The application has been amended as follows:

Under the heading "Brief Description of the Drawings" on Page 7, line 17, replace "Fig. 5 is a view" with "Figs. 5A-5D are views".

Under the heading "Brief Description of the Drawings" on Page 7, line 24, replace "Fig. 7 is a view" with "Figs. 7A-7G are views".

Under the heading "Brief Description of the Drawings" on Page 8, line 15, replace "Fig. 10 is a view" with "Figs. 10A-10B are views".

The following is an examiner's statement of reasons for allowance:

Claims 20 and 22-25 are allowable over the prior art of record because the prior art of record does not teach the claimed subject matter of including forming a plurality of lead portions along the cantilever, and which terminate in a conductive shunt area at a distal end of the cantilever; and forming a plurality of electrodes at the conductive shunt area by sputtering or gas-assisted etching of the conductive shunt area using a focused charged particle beam.

Claim 21 is allowable over the prior art of record because the prior art of record does not teach the claimed subject matter including forming a plurality of lead portions along the cantilever; and forming a plurality of electrodes at the distal end of the cantilever by irradiating the distal end of the cantilever with a focused charged particle beam while blowing a source gas toward the distal end.

Claims 54-70 are allowable over the prior art of record because the prior art of record does not teach the claimed subject matter including providing a cantilever having a distal end portion on which is formed a conductive film; and dividing the conductive film into a plurality of electrodes by sputter etching or gas-assisted etching of the conductive film using a focused charged particle beam thereby forming a multi-tip probe.

Claims 71-76 are allowable over the prior art of record because the prior art of record does not teach the claimed subject matter including providing a cantilever having a distal end portion; forming a plurality of conductive lead portions extending lengthwise along the cantilever; and forming a plurality of electrodes on the distal end of the cantilever and in contact with respective ones of the conductive lead portions by irradiating the distal end portion of the cantilever with a focused charged particle beam while directing a source gas toward the distal end portion thereby forming a multi-tip probe.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney G. McDonald whose telephone number is 571-272-1340. The examiner can normally be reached on M- Th with Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rodney G. McDonald
Primary Examiner
Art Unit 1753

RM
May 18, 2005